REVUE NEUROLOGIQUE

(Vol. 12, 1904, No. 1, January 15.)

1. The Nature and Pathogenesis of the Spinal Root Lesions Accompanying Brain Tumors. J. Nageotte.
2. Pedunculo-Pontine Tubercles. E. Lenoble and E. Aubineau.
3. Paranoid Epilepsy. Marco-Lévi Bianchini.

1. *Spinal Root Lesion in Brain Tumors.*—The author describes in three cases of brain tumor, the changes observed in the spinal cord and nerve roots by the Marchi method. The well-known degenerations in the posterior roots are described in detail. In addition interstitial inflammatory changes (periarteritis and endoneuritis) were noted in the extra-medullary portion of the spinal nerve roots below the union of the anterior and posterior roots and above the spinal ganglion. The inflamed area was evident to the naked eye as a small tumefaction. Serial microscopical study of the roots demonstrated subacute and chronic inflammatory changes in the interstitial and vascular elements at the site of tumefaction, with evidences of myelin disorganization. The axis cylinders except for a somewhat swollen and tortuous appearance, are well preserved. That portion of the root intervening between the inflamed nodulation and the point of entrance to the cord presented a normal appearance. As soon as the root perforates the pia mater disorganization of the myelin sheaths becomes evident. The degeneration increases in extent as the cord is ascended. The tract of Lissauer is free as is also the posterior commissure. The reflex collaterals are delicately indicated by myelin droplets, and slight degeneration was observed in Schultze's comma and the septomarginal tract. The intra-medullary portion of the anterior roots were degenerated (retrograde degeneration). The author assumes that the primary lesion in these cases, as in tabes, is located in the extra-medullary portion of the posterior roots, but, unlike tabes, is not a specific, but a simple inflammatory process. The immediate proximity of this portion of the root to the subarachnoid space exposes it to the toxic influences of the cerebrospinal fluid (syphilitic virus) or the toxin emanating from tumors. While the tabetic degenerations and those following tumor of the brain have some features in common, as the localization of the inflammatory focus in an extra-medullary root and the radicular character of the secondary degenerations, certain differences are apparent. Thus in tumor while the degenerations are radicular they are non-systemic in character, the inflammatory process is non-specific and the secondary changes in the nerve fibers is far less destructive in character. The explanation of the fact, that while the primary inflammatory lesion is situated below the junction of the anterior and posterior roots, the secondary degenerative changes only begin after the roots have traversed the pia, is more or less hypothetical in nature.

2. *Pedunculo-Pontine Tubercles.*—Description of the symptoms produced by tubercles, two situated in the pons Varolii of a child aged ten months. Complete paralysis of the left third nerve, right-sided ptosis and paralysis of an inferior portion of the right facial, were referable to a tubercle in the dorsal region of the pedunculo-pontine portion in the left side. Another tubercle in the central portion of the right side of the pons was indicated by a slight weakness of the left arm and leg, which would probably have escaped notice were it not for other paralyses. The authors emphasize this paucity of symptoms and remark that solitary tubercles in young children may run an entirely latent course. A large cavity (tuberculous) in the right lung also escaped notice and the danger of this in young children when the diseased focus is surrounded by healthy lung tissue is emphasized.

3. *Paranoid Epilepsy.*—Under the above heading the author describes

a peculiar case of the extreme mental confusion or delirium of epilepsy. Peculiar in that the "*grand mal intellectuelle*" had replaced the typical motor manifestations some years before, and the delirium showed distinct evidences of organization. Because of the unusual indications of systematization, of a more or less persecutory nature, this form is described as a *delire persecutif paranoïde*." These mental outbursts occurred five or six times a year, lasting two or three weeks.

(Vol. 12, 1904, No. 2, Jan. 30.)

1. Acute Optic Neuromyelitis. E. BRISSAUD and BRECY.
2. Objective Disturbances of Sensibility in Acroparesthesia and Their Radicular Distribution. J. DEJERINE and EGGER.
3. On the Transformation of the Law of the Cutaneous Reflexes in Affections of the Pyramidal Tract. J. BABINSKI.

1. *Acute Optic Neuromyelitis.*—As acute optic neuromyelitis, a designation proposed by Devic, is described a symptom-complex characterized by an acute diffuse or disseminated myelitis, associated with optic neuritis and blindness. The author records an interesting case with autopsy, terminating fatally in thirteen days. Acute onset with headaches, weakness and sensory disturbances in the lower extremities in a boy of sixteen. Rapid progression ending in complete quadriplegia and anesthesia to the lower margin of the ribs. Preservation of the skin and tendon reflexes. Speech scanning and nasal. External strabismus with vertical nystagmus of the left eye. Pupils dilated and without reaction in the right eye. Incontinence of urine. Obstinate constipation. Lumbar puncture: numerous red cells, also lymphocytes and some polynuclears. Visual symptoms (amblyopia) with optic neuritis were apparent on the fourth day. Autopsy: Acute inflammatory changes were found in the cervical and dorsal regions of the cord and the brain stem, consisting essentially of cell accummulations in the perivascular spaces. These cells were largely of a round or oval contour (epithelioid) and contained myelin products and fat droplets in large quantities. Extensive degeneration of the neural structures with acute interstitial changes were noted in the optic nerves. Examination of the spinal nerve roots and peripheral nerves was negative.

2. *Disturbances in Acroparesthesia.*—Dejerine and Egger, following the suggestion of Pick, who pointed out the occasional segmental (radicular) distribution of the subjective sensory disturbances of the acroparesthesiæ, have demonstrated slight objective sensory symptoms having a similar distribution. Four cases are described in which a hyperesthesia of variable intensity was distinctly demarcated, corresponding to the known radicular or segmental distribution of the upper extremities. The apparent blunting of the deep sensibility is probably due to the vascular changes and consequent anemia of the parts, which also explains in part the subjective disturbance of numbness. The symptoms of the acroparesthesia on the basis of their studies, were attributed to irritation of the posterior roots in their intramedullary course. As the vasoconstrictors emerge largely by way of the anterior roots, their implication is probably one of reflex origin. A certain analogy existing between these cases and tabes is indicated.

3. *Transformation of the Law of Cutaneous Reflexes.*—It is generally admitted that a certain antagonism or variance exists between the skin and tendon reflexes in lesions of the pyramidal tracts; that while the tendon reflexes are exaggerated the skin reflexes are usually diminished or absent. Some observers attaching considerable diagnostic importance to the abolition of the skin reflexes under such circumstances. It is to be remarked that this abolition of the skin reflexes in pyramidal tract lesions refers only to the normal or physiological skin reflex, *i.e.*, a definite muscular response elicitable on stimulation of a (*definite*) surface

area. On the other hand, the exclusive reflex activity of the lower extremities to peripheral stimuli in cases of paraplegia is a common observation; transcending the normal in extent and degree. Cases are presented by the writer illustrating some of the peculiarities and derangements of the cutaneous reflex action in spastic cases. The concluding remarks are as follows: In affections of the pyramidal tracts, the diminution or abolition of the abdominal and cremasteric reflexes are in contrast, it is true, with the exaggeration of the tendon reflexes. If the cutaneous reflexes are considered from a general standpoint and an attempt is made to express the essential nature of the disturbance which they suffer, it would not be just to say that they were abolished in contrast to, nor correct that they are exaggerated as are the tendon reflexes in spastic cases. What could be said is that the law governing the cutaneous reflexes suffers a transformation. J. Ramsay Hunt (New York).

MISCELLANY

A Case of Acute Disseminated Encephalomyelitis. Joseph L. Miller (Journal of the American Medical Association, Oct. 24, 1903).

Acute disseminated encephalomyelitis manifests itself in one of two clinical types, acute ataxia or acute paraplegia.

The author reports a case of a man aged 47, alcoholic and syphilitic, who had sustained a severe traumatism to the leg. During an attack of pneumonia he suddenly developed temporary aphasia. Later he suddenly developed a staggering gait, slow, monotonous speech; he suffered remissions in his disturbance of gait; a slight tremor of the hands when at rest or in motion; horizontal nystagmus, and no optic atrophy.

This is a clinical picture of multiple sclerosis, but differs from it by its acute onset. Pathologists agree that the anatomical findings may be identical with multiple sclerosis. Many writers consider the cases of this type multiple sclerosis with acute onset. W. B. Noyes.

An Early Sign of General Paralysis.

E. Toulouse and Cl. Vurpas, at the 13th congress of alienists, held at Brussels, have called the attention to a new sign of paresis, by modifying the pupillary reflex by applying eserine and atropine to the eye. In the latent period of the disease the reaction to these drugs does not appear at all; in the time of reaction or later period of paresis a few drops of either drug will produce a maximum effect in a short time.

W. B. Noyes.

Inhibition in the Medusæ. L. Sanzo (Arch. Ital. de Biologie, Oct. 10, 1903).

As a physiological process, inhibition is manifested not only in the highly complex organisms, but also in those at the lower end of the scale of animal life. L. Sanzo, stimulated by the observations of Romanes and Krukenberg, namely, that the rhythmic contractions of the jelly-fish are analogous to those of the frog's heart, decided to investigate the problem whether inhibition plays any rôle in the vital manifestations of this organism. He finds that the contractions are truly rhythmical. In treating the animal to the action of pilocarpine, nicotine or muscarine, which stops the action of the heart in the higher animals, the author discovers that the contractions after an increase in energy and frequency, soon diminish and then stop in diastole. The author then inquires whether this is due to an exaggeration of the normal process of inhibition or is to be attributed to the toxicity of the substance employed. He finds that the excitability of the muscular fibers and the conductivity of the nerves are still preserved, that the action is evidently limited to the ganglia. To solve the question whether the drug stimulates normal process of inhibition in the latter or paralyzes